

Notice of Allowability

Application No.

10/763,548

Examiner

Eric F. Winakur

Applicant(s)

LOWERY ET AL.

Art Unit

3768

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the RCE and amendment filed 2 March 2007.
2. ☒ The allowed claim(s) is/are 2-13.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with David Weinstein on 26 March 2007. Applicant agreed to amend claim 5 to properly set forth the Markush group and to amend claim 13 for purposes of grammar and clarity.

The application has been amended as follows:

In claim 5, line 5, "or" was changed to -- and --.

Claim 13 was amended as follows:

13. A method for identifying artifacts in optical measurements conducted for the purpose of determination of concentration of an analyte in a tissue, or value of a physiological parameter, or a combination of the forgoing, the method comprising the steps of:

(a) providing an apparatus for measuring at least one optical property of the tissue;

(b) introducing electromagnetic radiation at at least one wavelength into the tissue by means of the apparatus;

(c) collecting optical data from the tissue over a selected period of time;

(d) introducing the collected data into an algorithm to identify an artifact in the optical data, the artifact resulting from movement of the probe or the tissue during a brief period of time; and

(e) determining whether an artifact has appeared in the optical data,
wherein the algorithm utilizes equations for calculating a set of values [is
calculated] from the optical data, which optical data comprise a plurality of data points,
the equations comprising values selected from the group consisting of:

$$S(i) = [1 - P] \cdot S(i-1) + P \cdot [X(i) - X(i-1)] \quad (1)$$

$$A(i) = [1 - P] \cdot [A(i-1) + S(i)] + P \cdot X(i) \quad (2)$$

$$D(i) = |X(i) - A(i)| \quad (3)$$

Where:

N = effective quantity of data points in the moving average for the algorithm (N =
value greater than 1, as specified by user)

Dc = artifact threshold value for D(i) (Dc = value greater than 0, as specified by
user)

P = algorithm constant ($P = 2/[N + 1]$)

i = current data point number (i is greater than 1)

X(i) = value of the current data point

X(i-1) = value of the previous data point

X(1) = value of the first data point

S(i) = value of slope parameter at the current data point

S(i-1) = value of slope parameter at the previous data point

S(1) = value of slope parameter at the first data point (S(1) = 0)

A(i) = value of moving average at the current data point

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$A(i-1)$ = value of moving average at the previous data point $A(1)$ = value of moving average at the first data point ($A(1) = X(1)$)

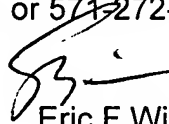
$D(i)$ = absolute difference between $X(i)$ and $A(i)$ at the current data point.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric F. Winakur whose telephone number is 571/272-4736. The examiner can normally be reached on M-Th, 7:30-5; alternate Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eleni Mantis-Mercader can be reached on 571/272-4740. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Eric F Winakur
Primary Examiner
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